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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Dhinakar Radhakrishnan

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
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EXAMINER

ELALLAM, AHMED

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,831

Applicant(s)

RADHAKRISHNAN ET AL.

Examiner

AHMED ELALLAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-26,28-40 and 43-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-26,28-40 and 43-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to RCA filed on 4/15/2005.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the Radio Access Network (RAN) (as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required

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corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 3-26, 28-40, 43-50 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

With regard to independent claims 1, 16 and 28, the specification doesn't adequately describe the claimed "the SIM ...execute commands related to a card holder verification (CHV) feature including enabling and disabling the CHV feature". More specifically, the specification doesn't describe nor give examples of any CVF "feature".

Claims 3-15, 17-27, 29-40 and 43-50 depend from respective claims 1, 16 and 28, thus they are subject to the same rejection.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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3. Claims 1, 3-26, 28-40, 43-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding independent claims 1, 16 and 28, it is not clear what is meant by the execution of commands by the SIM related to a card verification feature including enabling and disabling the CHV feature. More specifically, the meaning of the claimed "CHV feature" is vague. In addition, none of dependent claims specify the "CHV feature" and that cast a doubt to what the feature stands for.

Claims 3-15, 17-27, 29-40 and 43-50 depend from respective claims 1, 16 and 28, thus they are subject to the same rejection.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1 and 3-5, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Brown et al. (USPN 5,537,474), hereinafter referred to as Brown.

Referring to claim 1, Brown discloses a code division multiple access (CDMA) mobile station (MS) (a CDMA compliant subscriber unit (SU) (see column 5 lines 13-38 and figure 2)), comprising:

a radio circuit configured to communicate with a CDMA radio access network (RAN) using CDMA protocol (the SU has circuitry to communicate with a CDMA network (see column 5 lines 13-38 and figure 2));

and a subscriber circuit configured to communicate with a GSM subscriber identity module (SIM) (the SU also has circuitry to communicate with a subscriber identification unit (SU) which comprises a SIM (see column 5 lines 13-38 and figure 2)) to permit the MS to authenticate itself with a GSM core infrastructure, whereby use of the CDMA RAN with the GSM core infrastructure is facilitated (the SU communicates with the CDMA network by authenticating itself through the use of the SU which uses a GSM based protocol ((see column 5 lines 13- 38 and figure 2)); and the SIM, wherein the SIM is configured to store GSM application file level data (the SIM stores an IMSI, which can be considered 'GSM application file level data' (see column 3 lines 21-67)) and telecom level data (the SIM also stores a secret key, which can be considered telecom level data' (see column 1 lines 21-67)), and execute commands related to a card holder verification feature (the SIM comprises a microprocessor and memory for executing commands to perform an authentication algorithm (see abstract and column 3)), including enabling and disabling the CHV feature (the SIM card can be removed from the mobile unit thus all functions related to the SIM card can be enabled or disabled by doing so (see column 5).

Referring to claim 3, Brown discloses the system discussed above. Furthermore, Brown discloses that the MS reads at least one identifier from the SIM upon

engagement of the SIM with the MS (the SU reads an unique identity number from the SIM (see column 5 lines 39-67 and figure)).

Referring to claim 4, Brown discloses the system discussed above. Furthermore, Brown discloses that the identifier is an international Mobile Subscriber Identity (IMSI) (the identifier is an IMSI number (see column 5 lines 39-67 and figure 2)).

Referring to claim 5, Brown discloses the system discussed above. Furthermore, Brown discloses the IMSI being transmitted by the MS in at least one message (the IMSI is reported to the GSM system (see column 10 lines 8-15)).

5. Claims 16-18 and 28-32, as best understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Ahn et al. (Publication number 2002/0061745), hereinafter referred to as Ahn.

Referring to claim 16, Ahn discloses a method for facilitating the use of a CDMA RAN with a GSM core infrastructure (a CDMA system is used in conjunction with a GSM system (see figure 3 and abstract)), comprising:

engaging a SIM with a CDMA MS (a CDMA mobile terminal has a SIM installed thereto (see abstract and figure 3));

transmitting at least one IMSI stored on the SIM to an MSC using a CDMA RAN (the CDMA terminal transmits the MSI to the MSC (see page 3 paragraph 0043)).

using the IMSI, authenticating the SIM with a GSM core infrastructure (the IMSI is used to authenticate the SIM of the CDMA terminal with the GSM network (see page 3 paragraphs 0045-0051));

based on the authenticating act, registering the MS with SIM with the MSC (if the authentication is successful and it is determined the user is legitimate, the CDMA terminal is registered with the MSC (see page 3 paragraph 0053-0054));

storing GSM application file level data in the SIM (the SIM stores an IMSI, which can be considered 'GSM application file level data' (see paragraph 0043));

storing telecom level data in the SIM (the SIM stores a and also is used in the storing and transmitting of SMS, which can both be considered 'telecom level data' (see paragraph 0049)) and executing commands by the SIM related to a card holder verification feature (the SIM is used to execute authentication algorithms (see paragraph 0049)); including enabling and disabling the CHV feature (the authentication algorithm takes place only when desired via a request and then when the algorithm is complete it is thus not enabled any more in the phone (see page 3 paragraphs 0045 - 0051)).

Referring to claim 17, Ahn discloses the system discussed above. Furthermore, Ahn discloses transmitting the IMSI in at least one message (the IMSI is transmitted to the MSC (see page 3 paragraph 0043)).

Referring to claim 18, Ahn discloses the system discussed above. Furthermore, Ahn discloses that the message is a registration message (the IMSI is send to the MSC to in a registration request from the CDMA terminal (see page 3 paragraph 0043)).

Referring to claim 28, Ahn discloses a system for facilitating the use of a CDMA RAN with a GSM core infrastructure (a CDMA system is used in conjunction with a GSM system (see figure 3 and abstract)), comprising:

an MSC communicating with the CDMA RAN using CDMA protocol (an MSC communicates in a CDMA network using the CDMA protocol (see page 3 paragraphs 0043 and 0044)), the MSC also communicating with the GSM core infrastructure using GSM protocol (the MSC communicates with the GSM network (see page 3 paragraphs 0043-0045));

at least one MS communicating with the CDMA RAN and having a registration in the GSM core infrastructure (the user CDMA terminal is a GSM service subscriber (see paragraph 0045)); and

at least one SIM detachably engageable with the MS, wherein the SIM is configured to store GSM application file level data (the SIM stores an IMSI, which can be considered 'GSM application file level data' (see paragraph 0043)) and telecom level data (the SIM stores a RAND also is used in the storing and transmitting of SMS, which can both be considered 'telecom level data' (see paragraph 0049)), and

authenticate the MS with the GSM core infrastructure and execute commands related to a card holder verification feature (the SIM is used to execute authentication algorithms that include commands (see paragraph 0049)), including enabling and disabling the CHV feature (the SIM card can be removed thus all functions related to the SN card can be enabled or disabled by doing so (see figures 7 and 8)).

Referring to claim 29, Ahn discloses the system discussed above. Furthermore, Ahn discloses that the MS reads at least one identifier from the SIM upon engagement of the SIM with the MS (the CDMA terminal reads and transmits the NSI to the MSC (see page 3 paragraph 0043)).

Referring to claim 30, Ahn discloses the system discussed above. Furthermore, Ahn discloses that the identifier is an International Mobile Subscriber Identity (IMSI) (the identifier is an IMSI number (see page 3 paragraph 0043)).

Referring to claim 31, Ahn discloses the system discussed above. Furthermore, Ahn discloses transmitting the IMSI in at least one message (the IMSI is transmitted to the MSC (see page 3 paragraph 0043)).

Referring to claim 32, Ahn discloses the system discussed above. Furthermore, Ahn discloses that the message is a registration message (the IMSI is send to the MSC to in a registration request from the CDMA terminal see page 3 paragraph 0043)).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6-8, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Thomas (USPN 6,014,558), hereinafter referred to as Thomas.

Referring to claims 6-8, Brown discloses the system discussed above. Brown does not disclose that the messages are registration, origination or page response messages. However, as shown in Thomas, it is a well-known standardized process in the art for mobile units to transmit mobile subscriber identity numbers in messages

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related to registration, origination and paging messages (see column 2 lines 43-65). It would have been obvious to one skilled in the art at the time of the invention to transmit the IMSI number disclosed in Brown in registration, origination and page response messages, as taught in Thomas, because sending such identification numbers in these kinds of messages is well known and therefore doing so would reduce developmental costs that would be incurred if an entirely new type of message was to be implemented.

8. Claim 9, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Tiedemann (USPN 5,862,471), hereinafter referred to as Tiedemann.

Referring to claim 9, Brown discloses the system discussed above. Brown does not disclose that the MS selectively displays at least one service provider name. However, Tiedemann discloses of a system wherein mobile stations display the name of the service provider that is serving the mobile station (see column 2 lines 50-58)). It would have been obvious to one skilled in the art at the time of the invention to have the SU of Brown display the name of the service provider, as taught in Tiedemann, because as Tiedemann points out in column 2 lines 56-58, by knowing the name of the service provider a user can make a more educated estimate of roaming costs. This is particularly beneficial in Brown since the SU in Brown roams between GSM and CDMA networks.

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9. Claim 10, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Skog (USPN 5,930,701), hereinafter referred to as Skog.

Referring to claim 10, Brown discloses the system discussed above. Brown does not disclose that the MS selectively displays at least one mobile directory number. However, Skog discloses a system wherein the mobile stations display directory numbers (see column 8 lines 45- 51)). It would have been obvious to one skilled in the art at the time of the invention to display directory numbers, as taught in Skog, in the system of Brown because as Skog points out in column 8 lines 48-51 displaying the number enables the mobile subscriber to be informed of the calling pm directory number associated with an incoming call that was attempted when the mobile station was unreachable. This would make the system of Brown more reliable versatile in that when the mobile station in Brown is powered-up after being powered down for a period of time the user of the mobile station will know the number of the person who was trying to reach them during the powered-down period.

10. Claim 11, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Maruyama (USPN 5,646,604), hereinafter referred to as Maruyama.

Referring to claim 11, Brown discloses the system discussed above. Brown does not disclose that the MS permits a user to use the MS only if the user inputs a predetermined verification value to the MS. However, Maruyama discloses a system

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wherein a user of a mobile unit must insert a personal identification code in order to operate the mobile station (see abstract and column 1 lines 19-57)). It would have been obvious to one skilled in the art at the time of the invention to implement the code inserting operation taught in Maruyama, in the system of Brown because doing so would increase the level of security associated with the mobile unit by preventing individuals that do not know the personal identification code from using the mobile unit.

11. Claims 12-14, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Cassidy et al. (USPN 6,480,725), hereinafter referred to as Cassidy.

Referring to claim 12, Brown discloses the system discussed above. Brown does not disclose that the MS terminates a call upon removal of the SIM from the MS. However, Cassidy discloses a system comprising mobile stations wherein when SIM cards are removed from the mobile station any call in progress is terminated (see column 5 lines 1-9)). It would have been obvious to one skilled in the art at the time of the invention to terminate calls made by the mobile unit in Brown when the SIM is removed, as taught in Cassidy, because doing so would increase security of the system. Namely, since the SIM card is used for encrypting messages communicated by the mobile station, removing the SIM would submit any communications made by the mobile station to possible malicious entities; therefore terminating the call when the SIM is removed will prevent this from occurring.

Referring to claim 13, Brown discloses the system discussed above. Brown does not disclose deleting the subscriber information upon removal of the SIM from the MS. However, it would have been obvious to one skilled in the art at the time of the invention to delete the subscriber's information when the SIM is removed because since the SIM is removed the mobile unit is not being used to make calls and therefore there is no need to retain the subscribers information any longer. Furthermore, retaining the subscribers information requires utilizing memory space in the mobile unit and so deleting this information when its not being used will increase the unused memory capacity of the mobile unit and therefore there will be more memory available for use by other information.

Referring to claim 14, Brown discloses the system discussed above. Brown does not disclose that the MS periodically checks for the presence of the SIM in the MS and terminates a call when the MS determines that the SIM is no longer engaged with the MS. However, Cassidy discloses of a system wherein a mobile unit periodically checks for the SIM card and terminates calls when the SIM is removed and therefore determined not to be present (see column 4 lines 58-67 and column 5 lines 1-9)). It would have been obvious to one skilled in the art at the time of the invention to, in the system of Brown, periodically check for the presence of a SIM and terminating calls when the SIM is not present, as taught in Cassidy, because doing so would increase the security of the Brown system. Namely, since the SIM card is used for encrypting messages communicated by the mobile station, it is important to check and determine if the card is present in order to prevent any communications to be intercepted by

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possible malicious entities, therefore determining if the SIM is present and terminating the call when the SIM is not present will prevent this from occurring.

12. Claim 15, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown.

Referring to claim 15, Brown discloses the system discussed above. Brown does not disclose that the MS uses cdma2000 principles. However, it would have been obvious to one skilled in the art at the time of the invention to utilize the already existing cdma2000 protocol in the system of Brown because doing so would decrease development costs since an entirely new protocol would not have to be used to implement the system of Brown.

13. Claims 19, 20, 33 and 34, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahn in view of Thomas.

Referring to claims 19, 20, 33 and 34, Ahn discloses the system discussed above. Ahn does not disclose that the messages are origination or page response messages. However, as shown in Thomas, it is a well-known standardized process in the art for mobile units to transmit mobile subscriber identity numbers in messages related to origination and paging messages (see column 2 lines 43-65). It would have been obvious to one skilled in the art at the time of the invention to transmit the IMSI number disclosed in Ahn in origination and page response messages, as taught in Thomas, because sending such identification numbers in these kinds of messages is

well-known and therefore doing so would reduce developmental costs that would be incurred if an entirely new type of message was to be implemented.

14. Claims 21 and 35, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahn in view of Tiedemann.

Referring to claims 21 and 35, Ahn discloses the system discussed above. Ahn does not disclose that the MS selectively displays at least one service provider name. However, Tiedemann discloses of a system wherein mobile stations display the name of the service provider that is serving the mobile station (see column 2 lines 50-58)). It would have been obvious to one skilled in the art at the time of the invention to have the CDMA terminal of Ahn display the name of the service provider, as taught in Tiedemann, because as Tiedemann points out in column 2 lines 56-58, by knowing the name of the service provider a user can make a more educated estimate of roaming costs. This is particularly beneficial in Ahn since the CDMA terminal in Ahn roams between GSM and CDMA networks.

15. Claims 22 and 36, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahn in view of Skog.

Referring to claims 22 and 36, Ahn discloses the system discussed above. Ahn does not disclose that the MS selectively displays at least one mobile directory number. However, Skog discloses a system wherein the mobile stations display directory numbers (see column 8 lines 45- Page 13 51)). It would have been obvious to one

skilled in the art at the time of the invention to display directory numbers, as taught in Skog, in the system of Ahn because, as Skog points out in column 8 lines 48-51, displaying the number enables the mobile subscriber to be informed of the calling part directory number associated with an incoming call that was attempted when the mobile station was unreachable. This would make the system of Ahn more reliable and versatile in that when the CDMA terminal in Ahn is powered-up after being powered down for a period of time the user of the mobile station will know the number of the person who was trying to reach them during the powered-down period.

16. Claims 23 and 37, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahn in view of Maruyama.

Referring to claims 23 and 37, Ahn discloses the system discussed above. Ahn does not disclose that the MS permits a user to use the MS only if the user inputs a predetermined verification value to the MS. However, Maruyama discloses a system wherein a user of a mobile unit must insert a personal identification code in order to operate the mobile station (see abstract and column 1 lines 19-57)). It would have been obvious to one skilled in the art at the time of the invention to implement the code inserting operation taught in Maruyama, in the system of Ahn because doing so would increase the level of security associated with the CDMA terminal by preventing individuals that do not know the personal identification code from using the mobile unit.

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17. Claims 24-26 and 38-40, as best understood, are rejected under 35 U.S.C. 103(a) as being Page 14 unpatentable over Ahn in view of Cassidy.

Referring to claims 24 and 38, Ahn discloses the system discussed above. Ahn does not disclose that the MS terminates a call upon removal of the SIM from the MS. However, Cassidy discloses a system comprising mobile stations wherein when SIM cards are removed from the mobile station any call in progress is terminated (see column 5 lines 1-9)). It would have been obvious to one skilled in the art at the time of the invention to terminate calls made by the CDMA terminal in Ahn when the SN is removed, as taught in Cassidy, because doing so would increase security of the system. Namely, since the SIM card is used for encrypting messages communicated by the CDMA terminal, removing the SN would submit any communications made by the mobile station to interception by possible malicious entities; therefore terminating the call when the SIM is removed will prevent this from occurring.

Referring to claims 25 and 39, Ahn discloses the system discussed above. Ahn does not disclose deleting the subscriber information upon removal of the SIM from the MS. However, it would have been obvious to one skilled in the art at the time of the invention to delete the subscribers information when the SIM is removed because since the SIM is removed the mobile unit is not being used to make calls and therefore there is no need to retain the subscribers information any longer. Furthermore, retaining the subscribers information requires utilizing memory space in the mobile unit and so deleting this information when its not being used will increase the unused memory

capacity of the mobile unit and therefore there will be more memory available for use by other information.

Referring to claims 26 and 40, Ahn discloses the system discussed above. Ahn does not disclose that the MS periodically checks for the presence of the SIM in the MS and terminates a call when the MS determines that the SIM is no longer engaged with the MS. However, Cassidy discloses of a system wherein a mobile unit periodically checks for the SIM card and terminates calls when the SIM is removed and therefore determined not to be present (see column 4 lines 58-67 and column 5 lines 1-9)). It would have been obvious to one skilled in the art at the time of the invention to, in the system of Ahn, periodically check for the presence of a SIM and terminating calls when the SIM is not present, as taught in Cassidy, because doing so would increase the security of the Ahn system. Namely, since the SIM card is used for encrypting messages communicated by the mobile station, it is important to check and determine if the card is present in order to prevent any communications to be intercepted by possible malicious entities; therefore determining if the SIM is present and terminating the call when the SIM is not present will prevent this from occurring.

18. Claims 43-50, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Kolev et al, (USPN 5,884,168), hereinafter referred to as Kolev.

Referring to claims 43-50, Brown discloses the system discussed above. Brown does not disclose that the GSM application file level data comprises language

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preferences of an MS user, a service provider of an MS user, an accumulated call meter of an MS user, a service table indicating allocated services, a SIM/MS association, a price per unit/currency table. Brown also does not disclose that the SIM also stores a broadcast message identifier or a broadcast control channel designation. However, Kolev discloses a GSM system wherein a SIM card stores all of the above listed values (see the column entitled 'KSIM EF' in Table 1 that is located in column 8 lines 5-49)). It would have been obvious to one skilled in the art at the time of the invention to store such information in the Brown system because doing so would make Brown more user-friendly, reliable, flexible, secure and efficient. Note, the 'group ID level' values listed in Table 1 of Kolev correspond to the SIM/MS associations as recited in claim 47 and described in the specification.

Response to Arguments

19. Applicant's arguments filed April 15 2005 have been fully considered but they are not persuasive:

Brown reference:

On page 9, Applicants contend with regard to Brown reference, that the cited Brown text does not meet the language of independent claims 1, 16 and 28, and that Brown cited text is within the context of USDS phones (United States Digital Cellular), Applicant further refers to the passages in the specification to disqualify Brown from anticipating the claim language, specifically col 4, line 14 to col 4, line 60, which cited text relayed upon by the Examiner in the final office action. Examiner respectfully

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traverse Applicants argument, because while the cited passages may be misleading to whether the recited feature is disclosed by Brown, other passages should be also considered, for example on column 3, line 38-67 and column 4, lines 1-13 it is stated:

FIG. 1 generally depicts a subscriber communication unit 110 such as a cellular subscriber telephone and a fixed network communication unit 130, such as a cellular telephone base site and switching center. The subscriber unit 110 is generally depicted showing its RF stage 112 for receiving and transmitting RF signals, a microprocessing stage 114 connected to the RF stage and also connected to a memory 115. In addition the subscriber unit 110 is illustrated with an embedded subscriber identification unit (SIU) 116 generally illustrated including a microprocessing unit 118 and a memory 119. The SIU may be a detachable module such as the subscriber identity module (SIM) found in GSM phones. In accordance with the GSM protocol, such an SIU would have embedded within it both the subscriber identifier (IMSI) and secret key (Ki), as well as appropriate authentication and key agreement algorithms (A3 and A8; A5 resides in subscriber unit 110) to perform the security functions desired for the subscriber unit. In this respect the SIM is a smart card. It should be understood that while the subscriber unit 110 is illustrated having the SIU 116 embedded therein, various embodiments of the invention described below will show use of an SIU, such as a smart card, in arrangements where it cannot be permanently integrated within a subscriber unit. Further, it is possible for the functions of the SIU to be carried out within an appropriately structured subscriber unit using the memory 115 and processor 114 of the subscriber unit 110, as long as the unit is appropriately equipped with additional circuitry for communicating the security information, such as is discussed further in connection with FIG. 6 below. One skilled in the art will thus recognize that while there are a variety of ways by which the user's security information (e.g. identifier and secret key) can be maintained and accessed for authentication and privacy functions, the descriptions here and of the SIU only represent the presently preferred embodiment in connection with the cellular radiotelephone system. Additional elements which may be accessed by the microprocessing stage 114 of the subscriber unit 110 may include data input stages such as key entry pads or voice microphones, optional feature items, and in USDC a random number generator (for generating random challenges from the subscriber unit) and appropriate encryption/decryption circuitry.

The claimed feature, as best understood, relates to authentication, which feature is disclosed above in Brown using the GSM protocol, for example Brown states: "the SIM is a smart card...Further, it is possible for the functions of the SIU (smart card) to

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be carried out within an appropriately structured subscriber unit using the memory 115 and processor 114 of the subscriber unit 110, as long as the unit is appropriately equipped with additional circuitry for communicating the security information”.

Therefore, Examiner interpreted the communication of security information using the memory 115 and processor 114 of the subscriber unit 110 in carrying out the authentication step as being the claimed *“execution of commands related to a card holder verification (CHV) feature including enabling and disabling the CHV feature”*, since it is inherent to Brown that some commands or instructions need to be provided to the processor in carrying out the authentication. Therefore, and contrary to Applicants argument, the processor must be executing commands in order to determine if the authentication algorithm to be performed (i.e. enabled) and inherently at some point the processor will complete the authentication process and will cease to perform authentication (i.e. disable the feature).

Ahn reference:

Applicants while admitting that Ahn executes an authentication algorithm, they assert that Ahn does not necessarily imply that the SIM execute “commands related to a card holder verification (CHV) feature including enabling and disabling the CHV feature,” as required by independent claim 1. Applicants traverse the Examiner argument indicated in the final action, in which Examiner stated that “authentication “will be disabled since it is not required anymore”, stating that *when a terminal roams from one type of a network to another type of a network, it necessitates authentication. Thus*

authentication is required again, and the SIM needs to be reenabled to authenticate the terminal to operate within the new network. (Emphasis added).

Examiner respectfully disagrees, because the argument is not related to the claimed subject matter, since in the claim there is no indication of roaming. Similarly, the absence of a specified "CHV feature" resulted in the claimed "feature" of being interpreted as authentication, and if the user of the SIM is a valid user, authentication is going to proceed (enabled) otherwise the user is going to be denied access as well known in the art, see Lindemann et al US (6,799, 155) cited in the attached form PTO 802, in which various SIM functions are implemented using machine instructions commands.

Examiner concludes that the claimed "executing commands related to a card holder verification (CHV) feature including enabling and disabling the CHV feature" is interpreted as an authentication validation step that enable the user unit to either access the network or otherwise be denied access, such feature are notoriously known in the art.

Finally examiner believes, given the broadest reasonable interpretation of the claim limitations, the rejections above is proper.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Halloran et al, US (5,966,667); Park, US (6,138,005; Katz et al,

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US 2003/0061503; Petterson et al, US (6,615,057); Park et al, US (6,714,799) and Lindemann et al, US (6,799,155).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHMED ELALLAM
Examiner
Art Unit 2662
June 21, 2005



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